4.0 PUBLIC COORDINATION

4.1 Public Participation and Scoping

The public participation program for the Cortez Hills Expansion Project EIS includes an open forum for determining the scope of issues to be addressed in the assessment.

The BLM initiated the scoping process by publishing a Notice of Intent to prepare an EIS in the Federal Register (FR) on December 2, 2005 (FR Volume 70, Number 231). Public scoping meetings for the EIS were held in Crescent Valley and Battle Mountain, Nevada, on December 19 and 20, 2005, respectively. The comments received during the scoping process were considered in developing this EIS.

The scope of the EIS reflects input received from the public and from appropriate government agencies. The scoping comments were summarized and included in the preliminary EIS Preparation Plan. The following are the key scoping issues identified for the proposed project.

- Potential air quality impacts from fugitive dust and mercury emissions
- Potential visual impacts associated with mine expansion
- Potential vibration-related impacts to culturally and spiritually important areas as a result of blasting
- Potential short-term and long-term impacts to groundwater and surface water quality
- Potential impacts to groundwater and surface water from pit dewatering and mercury emissions
- Potential impacts to water quality from acid-generating waste rock
- Post-closure pit water quality
- Regional impacts to groundwater from drawdown
- Potential for pit lake aquatic community development and associated potential impacts for fisheries and vegetation
- Potential impacts to native vegetation and soil productivity as a result of project development and reclamation
- Potential impacts to wildlife and wildlife habitat from land clearing, mine operations, conveyor and power line installation, noise, and a potential hazardous materials spill
- The need for an ecological risk assessment

4.0 PUBLIC COORDINATION

- Potential short-term and long-term livestock grazing impacts
- Potential noise impacts from mine operations
- Potential transportation impacts associated with off site transport of ore and mine access traffic safety
- Access to, and protection of, cultural and spiritual sites
- Potential social and economic impacts
- Potential cumulative impacts

4.2 List of Contacts

While preparing the EIS for the proposed Cortez Hills Expansion Project, the BLM communicated with, and received input from, various federal, state, and local agencies and private organizations. The following sections list these contacts.

4.2.1 Federal Agencies

Bureau of Indian Affairs
U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service

4.2.2 State Agencies

Nevada Bureau of Air Pollution Control
Nevada Division of Environmental Protection
Nevada Department of Transportation
Nevada Department of Wildlife
Nevada Division of State Lands
Nevada Natural Heritage Program
State Historic Preservation Officer

4.2.3 Local Agencies

Lander County Clerk Lander County Road and Bridge Department Eureka County Assessor

4.2.4 Tribal Organizations

Battle Mountain Band

Confederated Tribes of the Goshute Reservation

Duck Valley Shoshone - Paiute Tribe

Duckwater Shoshone

Elko Band

Ely Shoshone

South Fork Band

Te-Moak Tribe

Timbisha Tribe

Wells Band

Western Shoshone Committee of Duck Valley

Yomba Shoshone

4.2.5 Other Organizations

Great Basin Mine Watch Western Shoshone Defense Project Western Watershed Project

4.3 List of Agencies, Organizations, and Persons to Whom Copies of this Statement are Sent

4.3.1 Federal Agencies

Bureau of Land Management, Carson City Field Office

Bureau of Land Management, Elko Field Office

Bureau of Land Management, Ely Field Office

Bureau of Land Management, Las Vegas Field Office

Bureau of Land Management, Pocatello Field Office

Bureau of Land Management, Tonopah Field Station

Bureau of Land Management, Winnemucca Field Office

U.S. Army Corp of Engineers, Reno, Nevada

U.S. Army Corps of Engineers, Sacramento, California

U.S. Department of the Interior, OEPC

U.S. Environmental Protection Agency, Washington, DC

U.S. Environmental Protection Agency, San Francisco, California

U.S. Fish and Wildlife Service, Reno, Nevada

U.S. Forest Service, Austin Ranger District

U.S. Forest Service, Tonopah Ranger District

4.3.2 State Agencies

Nevada State Clearinghouse/SPOC, Dept of Administration

Nevada Department of Agriculture

Nevada Department of Conservation and Natural Resources, Division of State Lands

Nevada Department of Minerals

Nevada Department of Transportation

Nevada Department of Wildlife, Elko, Nevada

Nevada Department of Wildlife, Las Vegas, Nevada

Nevada Department of Wildlife, Reno, Nevada

Nevada Division of Environmental Protection

Nevada Division of Environmental Protection, Bureau of Mining Regulation and Reclamation

Nevada Division of Forestry

4.3.3 Elected Officials

John Ensign, U.S. Senator Pete Goicoechea, Assemblyman Kenneth Guinn, Governor John Marvel, Assemblyman Harry Reid, U.S. Senator Dean A. Rhoads, State Senator Dina Titus, State Senator

4.3.4 County and Local Agencies

Eureka County Commissioners

Elko County Commissioners

Esmeralda County Commission

Eureka County Natural Resources Department

Greater Austin Chamber of Commerce

Humboldt River Basin Water Authority

Lander County Commissioners, Battle Mountain

Lander County Public Land Use Advisory Commission

Lander Economic Development Authority

Nye County Department of Natural Resources

4.3.5 Tribal Organizations

Battle Mountain Band Te-Moak Tribe of the Western Shoshone

Bureau of Indian Affairs, Eastern Nevada Agency

Duckwater Shoshone Tribe

Elko Band Te-Moak Tribe of the Western Shoshone

Ely Shoshone Tribe

Shoshone-Paiute Tribes of Duck Valley
South Fork Band Te-Moak Tribe of the Western Shoshone
Te-Moak Tribe of the Western Shoshone
Timbisha Shoshone Tribe
Wells Band Te-Moak Tribe of the Western Shoshone
Yomba Shoshone Tribe

4.3.6 Newspapers and Libraries

Battle Mountain Bugle Elko Daily Free Press Humboldt Sun

4.3.7 Organizations

Beatty Historical Museum Society
Commission for Preservation of Wild Horses
Committee for the High Desert
Earth Knowledge
EarthWorks
Eureka Sentinel Museum
Great Basin Mine Watch

Natural Resources Defense Council Nevada Cattlemen's Association Nevada Trappers Association Railroad Symposium

Sierra Club

MOSO RAC

Sierra Club, Toiyabe Chapter

The Fund for Animals

Western Action Mining Project

Western Shoshone Defense Project

Western Watersheds Project

WHOA

Wild Horse Preservation League

Wild Horse Wildness and Wildlife

4.3.8 Industry/Business

Barrick Gold Corporation
Beatty Cattle Company LLC
Becker Realty
C Ranches Inc.
Carter Cattle Company

4.0 PUBLIC COORDINATION

Chiara Ranch

Cortez Gold Mines

Cortez Joint Venture DBA Dean Ranch

Geothermal Associates

Hecla Ventures Corporation

JBR Environmental Consultants

Julian Tomera Ranches, Inc.

Kuipers and Associates

Nevada Land and Resource Company

Nevada Mining Association

Permits West Inc.

Resource Concepts Inc.

Romarco Minerals Inc.

Round Mountain Gold Corporation

Sansinena Ranch

Sierra Pacific Power Company

Summa Minerals

Toiyabe Exploration Inc.

Truckee River Ranch

Twin Springs Ranch

Vogue Linen Supply

4.3.9 Individuals

Leon Abrams
Gary Adams
Donna Bailey
Marriah Banghart
Clay Baty

Clinton and Ellen Boehringer

Madaya and Shayne Burdine Edward Burger

Paul Burkett
Rex Cleary
Roy Clifford
Joe Dahl

Ronald Damele Bruce Delaney Al Drayton

Barbara and Ken Dugan

Eden

Leroy Etchegaray

John and Ginger Fareio

Julie Fishel

Malloy Foster

Aaron Foxworthy
Chris Fuller

Chris Fuller
Theresa Gaiato

Dawn Gann

Donna Grill

Carl and Carole Hanks

Ritonda Harding Cynthia Harris Rich Harrison

Tuesday Henderson

Jerry Hepworth Bud Johns Rod Johnson

Tara Johnson L.A. Jones

Bill and Peggy Kirkpatrick

Lee Koch Bill Kohlmoos Brian Krueger John Lemke Frank Lewis

Herman Lindermann Ruby Lingelbach John Livermore

J. Locke
Sara Locke
Robert Long
Nancy Louden
Corey Lucero
Lowell Lynte
Dorene McClure
Suzy McCoy
Norman McKitrick
Richard Medley
Gale Mehrer
Diane Mihal
William Miller
John Minoletti
Sheldon Morrison

Marion Murphy Jason New Henry Nye Eric Oakes Royal Orser

Adell and Norman Panning

Durk Pearson Elaine Peterson Earl Phillips Bruce Piscitello David Plummer

Kenneth Reim

T : 1 D: :

Trish Rippie

Joe Rodriquez

Bret Rosecrans

Brian Rowley

Sam Sandoval

Mike Sansinena

Jay Scott

Sandy Shaw

Norman Sharp

Diane Shelley

Wanda Shuflin

Mark Simpson Stanley Smith Gordon Sobering Randy Spevak Kevin Stills

Jason Sutherland
Beth Swartz
Bill Templeton
JoAnne Thomas
Vernon Thompson
Fidel Velqsquez
Jose Vasquez
Ronie Waddell
Ed and Miriam Ylst

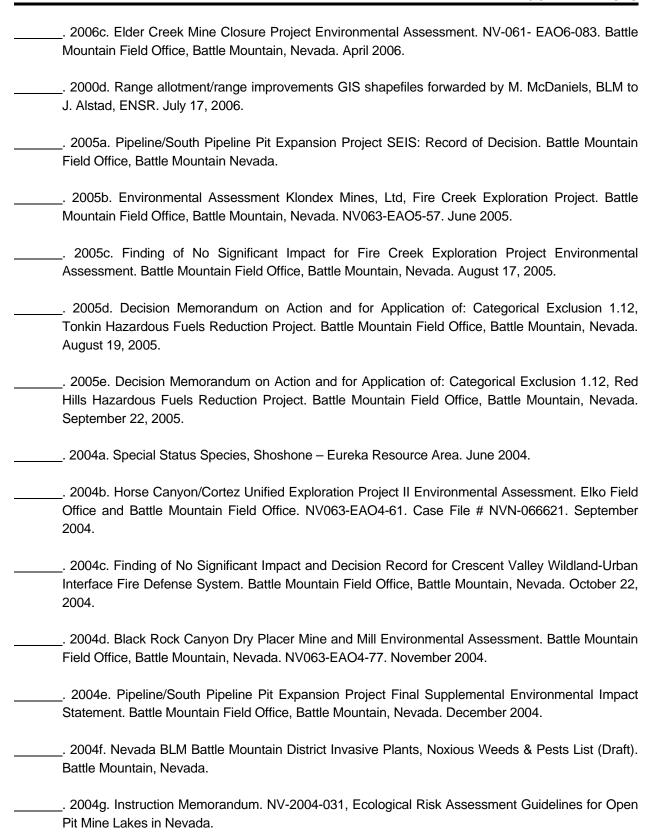
5.0 LIST OF PREPARERS AND REVIEWERS

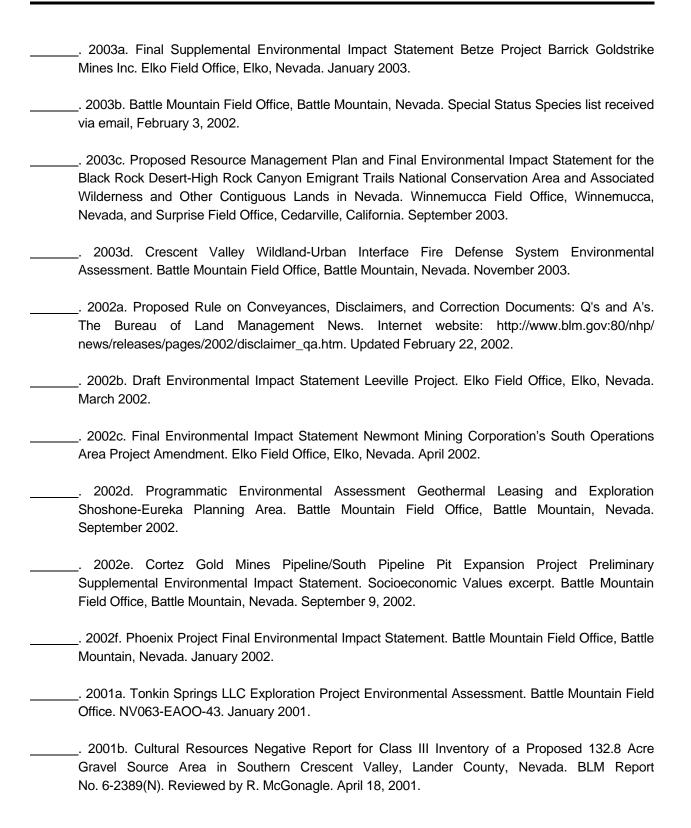
5.1 Bureau of Land Management EIS Team	n	
Responsibility	Name	Degree(s) and Experience
NEPA Coordinator, Environmental Justice	Chris Worthington (BMFO)	BS Forestry
•		23 years experience
	Angelica Ordaz (BMFO)	BS Environmental Studies
		6 years experience
Minerals, Geology, 3809 Lead, Hazardous	Stephen Drummond	BS Mining Engineering
Materials and Solid Waste	(BMFO)	26 years experience
Realty, Lands and Rights-of-Way	Charles Lane (BMFO)	MS, BS Geology
		31 years experience
Fire Management	Lisa Walker (BMFO)	Associate Science
	, , ,	15 years experience
Air Quality	Robert Boyd (NSO)	BS Geophysics
•		19 years experience
Water Quality and Quantity	Jon Sherve (BMFO)	MS Hydrology/Hydrogeology
•	(= ,	BA Biological Sciences
		14 years experience
	Tom Olsen (NSO)	PhD Geology Engineering
	, ,	MS, BS Geology
		26 years experience
Cultural Resources, Paleontology	Paula Sutton (BMFO)	MA Public Service Archaeology
, 33	,	BA Anthropology
		20 years experience
Native American Coordination	Gerald Dixon (Elko FO	BS Cultural Anthropology
	and BMFO)	12 years experience
Socioeconomics	Tom Crawford (CCFO)	MS/BS Environmental and Natural
	,	Resource Economics
		32 years experience
Forestry, Soils, Noxious Weeds	Joe Ratliff (BMFO)	MS Water Management
	(=)	BS Forestry
		15 years experience
Range Resources, Vegetation	Michele McDaniel (BMFO)	BS Natural Resource Management
	, ,	5 years experience
Migratory Birds, Special Status Species	Mike Stamm (BMFO)	BS Zoology
	,	28 years experience
Wildlife, Riparian and Wetlands	Duane Crimmins (BMFO)	BS Wildlife Biology
, 1	,	30 years experience
Ecological Risk	Cris Ross (NSO)	PhD Ecology
	, ,	13 years experience
Visual Resources	Robert Perrin (BMFO)	BS Economics
	,	10 years experience
Administrative Support	Leesa Marine (BMFO)	2 years experience
	Claudette Ramos	Bachelor of Applied Science
	(BMFO)	Management Technology
	- /	2 years experience
GIS	Kathy Graham (BMFO)	BS Wildlife Management Biology
		20 years experience
Fuels Management	Chad Lewis (BMFO)	BS Forestry
Ŭ		14 years experience
	•	
Cooperating Agency - Nevada Department	of Wildlife	
Name		Degree(s) and Experience
Rory Lamp		BS Zoology
		27 years experience
		, ,

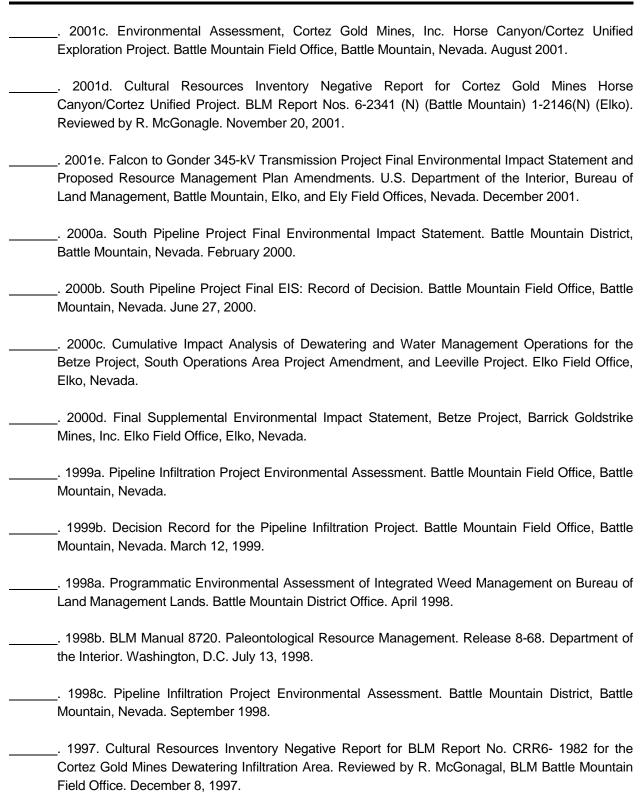
5.2 ENSR EIS Team (Third-party Consultant)		
Responsibility	Name	Degree(s) and Experience
Project Manager, NEPA Compliance	Valerie Randall	BA Urban Studies
	ENSR	29 years experience
Assistant Project Manager and NEPA Document	Dolora Koontz	BA Biology
Coordinator	ENSR	18 years experience
Surface Water, Soils, Reclamation	James Burrell	MS Civil Engineering
	ENSR	BS Forest Management
		31 years experience
Geology, Groundwater	Patrick Plumley	MS Geology
	Plumley & Associates	BS Geology
		22 years experience
Geochemistry	James Drever	PhD Geochemistry
	University of Wyoming	MA Chemistry
		BA Chemistry
		39 years experience
Hazardous Materials and Solid Waste	William Berg	MS Geology
	ENSR	BS Geology
		26 years experience
Air Quality	Vince Scheetz	MS Systems Management
	ENSR	BS Mathematics
		37 years experience
Vegetation, Special Status Plant Species, Range	Jon Alstad	MS Range Science
Resources, Wetlands	ENSR	BS Animal Science
		22 years experience
Wildlife and Special Status Species	Charles Johnson	MS Biology
	ENSR	BS Wildlife Biology
		15 years experience
Cultural Resources, Native American Consultation,		MA Anthropology
Paleontology, and Environmental Justice	ENSR	BA Anthropology
		13 years experience
Socioeconomics, Land Use and Access,	Bernie Strom	MCRP City and Regional Planning
Recreation and Wilderness, Visual Resources,	ENSR	BS Urban Planning
and Noise	5 11:	32 years experience
Document Production	Debbie Thompson	3 years General Education
	ENSR	23 years experience
Graphics Preparation	Scott MacKinnon	BS Physical Geography
	ENSR	4 years experience
5.3 Cortez Gold Mines Reviewers		
Name	Title and Company	
Steve Schoen	Cortez Lead, Cortez Gold Mines	
George Fennemore	Cortez Assistant Lead, Cortez Gold Mines	
Jim Butler	Attorney, Parsons Behle & Latimer	
Connie Rogers	Attorney, Davis Graham & Stubbs	

- AATA. 2006. Betze-Post Mine, Seep & Spring Study, Fall 2005; Prepared for Barrick Goldstrike Mines, Inc. April, 2006.
- Adams, R. A. 2003. Bats of the Rocky Mountain West. University Press of Colorado, Boulder, Colorado. 289 pp.
- Altenbach, J. S., W. Amy, P. V. Bradley, P. E. Brown, K. Dewberry, D. B. Hall, J. Jeffers, B. Lund, J. E. Newmark, M. J. O'Farrell, M. Rahn, R. E. Sherwin, C. R. Tomlinson, and J. A. Williams. 2002. Nevada Bat Conservation Plan, Nevada Bat Working Group. Austin, Nevada. 188 pp.
- AMEC Earth & Environmental, Inc. (AMEC). 2005a. <u>In</u>: Synthetic Aperture Radar (SAR) Evaluation for Ground Subsidence and Earth Fissure Monitoring 2004, Pipeline/South Pipeline Project, Cortez Gold Mines, Lander County, Nevada. July 28, 2005.
- ______. 2005b. Supplemental Slope Stability Study Revised Waste Dumps, Cortez Hills/Pediment Project, Cortez Gold Mines, Lander County, Nevada. August 2005.
- ______. 2004a. Personal communication from R. E. Weeks and P. Kaplan to G. Fennemore regarding Summary of Risk Assessment, Ground Subsidence and Earth Fissure Evaluation, Pipeline/South Pipeline Project, Cortez Gold Mines, Lander County, Nevada. January 7, 2004.
- _____. 2004b. Draft Feasibility Study Report, Heap Leach Facility, Cortez Hills/Pediment Project, Cortez Gold Mines, Lander County, Nevada. December 5, 2004.
- _____. 2004c. Draft Feasibility Report, Slope Stability Evaluation, Cell 1 Cell 2 Tailings, Storage Facility Expansion, Cortez Hills/Pediment Project, Lander County, Nevada. December 2004.
- _____. 2003. Preliminary Report Ground Subsidence and Earth Fissure Evaluation, Pipeline/South Pipeline Project, Cortez Gold Mines, Lander County, Nevada.
- American Ornithologists' Union (AOU). 1983. Check-list of North American Birds, 6th edition. Allen Press, Inc., Lawrence, Kansas. 877 pp.
- Arizona Game and Fish Department (AGFD). 1993. Bats of Arizona. Arizona Wildlife Views.
- Avian Power Line Interaction Committee (APLIC). 1996. Suggested Practices for Raptor Protection on Power Lines: the State of the Art in 1996. Edison Electric Institute.
- _____. 1994. Mitigating Bird Collisions with Power Lines: The State of the Art in 1994. Edison Electric Institute. Washington, D.C.

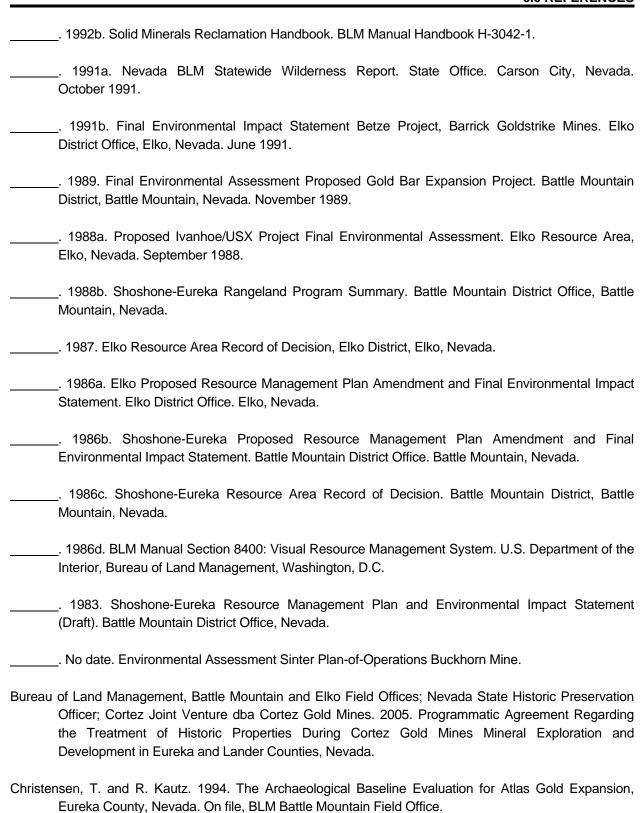
- Avian Power Line Interaction Committee (APLIC) and U.S. Fish and Wildlife Service (USFWS). 2005. Avian Protection Plan Guidelines. April 2005.
- Barrick Goldstrike. 2007. Boulder Valley Monitoring Plan, 2nd Quarter 2006, 3rd Quarter 2006. January 2007.
- Battelle. 2001. Comparative Risks of Hazardous Materials and Non-Hazardous Materials Truck Shipment Accidents/Incidents. Final Report. Prepared for the Federal Motor Carrier Safety Administration by Battelle, Columbus, Ohio. March 2001.
- Bedinger, M. S., J. R. Harril, W. H. Langer, J. M. Thomas, and D. A. Mulvihill. 1984. Maps showing groundwater levels, springs, and depths to groundwater, Basin and Range Province, Nevada: U.S. Geological Survey Water-Resources Investigations Report 83-4119-B.
- Belcher, W. R., Elliot, P. E., Geldon, A. L. 2001. Hydraulic-property Estimates for Use with a Transient Ground-water Flow Model of the Death Valley Regional Groundwater Flow System, Nevada and California: U.S. Geological Survey Water-Resources Investigation Report 01-4210.
- Bengston, G. 2003. Northern Paiute and Western Shoshone Land Use in Northern Nevada: A Class I Ethnographic/Ethnohistoric Overview. U.S. Department of the Interior. Cultural Resource Series No. 12.
- Berger, D. L. 2000. Water Budgets for Pine Valley, Carico Lake Valley, and Upper Reese River Valley Hydrographic Areas, Middle Humboldt River Basin, North-Central Nevada Methods for Estimation and Results: U.S. Geological Survey Water-Resources Investigation Report 99-4272.
- BGC Engineering, Inc. 2005. Final Report, Feasibility Level Pit Slope Designs, Cortez Gold Mines, Cortez Hills/Pediment Project. August 31, 2005.
- Bureau of Economic Analysis (BEA). 2005. State and Local Area Personal Income Data. U.S. Department of Commerce, Bureau of Economic Analysis. Washington, D.C. Internet website: http://bea.gov/index.htm.
- _____. 1992. Regional Multipliers: A User Handbook for the Regional Input-Output Modeling System (RMIS II), Second Edition. U.S. Department of Commerce. Washington, D.C.
- Bureau of Land Management (BLM). 2007. GIS Shapefiles provided to V. Randall, ENSR. April 2007.
- _____. 2006a. Cortez Mine Underground Exploration Project Environmental Assessment. Battle Mountain Field Office, Battle Mountain, Nevada. February 2006.
- _____. 2006b. GIS shapefiles provided to V. Randall, ENSR. November 20, 2006.



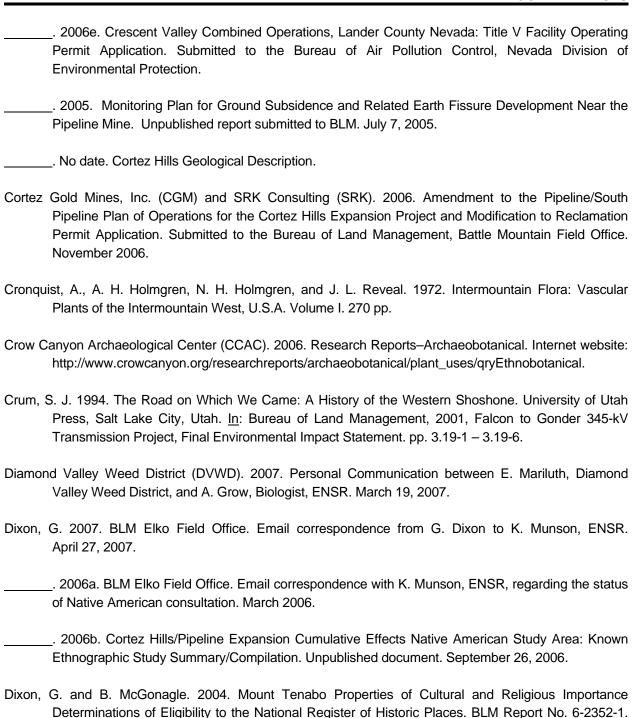




1996a. Cortez Pipeline Gold Deposit, Final Environmental Impact Statement — Volume 1. U.S. Department of the Interior, Bureau of Land Management, Battle Mountain District, Shoshone — Eureka Resource Area. January 1996.
1996b. Draft Environmental Impact Statement Bootstrap Project. Elko District Office, Elko, Nevada. February 1996.
1996c. Cultural Resources Inventory Negative Report for BLM Report No. CRR6- 1920(P) for the Cortez Gold Mines' Proposed Gravel Pit. February 28, 1996.
1996d. Record of Decision for the Cortez Pipeline Deposit Final EIS. Battle Mountain District, Battle Mountain, Nevada. March 4, 1996.
1996e. Draft Mule Canyon Mine Environmental Impact Statement. Battle Mountain District, Battle Mountain, Nevada. April 1996.
1996f. Newmont Gold Company Carlin Exploration Project Environmental Assessment. Elko District Office, Elko, Nevada. BLM/EKIPL-96/017. November 1996.
1996g. Cyanide Management Plan.
1996h. Instructional Memorandum 96-79: Acid Rock Drainage Policy. U.S. BLM, Washington, D.C. April 2, 1996.
1994. Cortez Pipeline Gold Deposit Draft Environmental Impact Statement. U.S. Department of the Interior, Bureau of Land Management, Battle Mountain District, Battle Mountain, Nevada. July 1994.
1993a. Environmental Assessment Meikle Mine Development. Elko District Office, Elko, Nevada. May 1993.
1993b. Draft Environmental Impact Statement Newmont Gold Company's South Operations Area Project. Elko District Office, Elko, Nevada. May 1993.
1993c. Final Environmental Impact Statement, Cortez Gold Mine Expansion Project. Prepared in cooperation with Nevada Department of Conservation and Natural Resources, Division of Environmental Protection. Battle Mountain District. August 1993.
1993d. Interim Management Policy and Guidelines for Lands under Wilderness Review.
1992a. Cortez Gold Mine Expansion Project Draft Environmental Impact Statement. U.S. Department of the Interior, Bureau of Land Management, Battle Mountain District, Battle Mountain, Nevada. December 1992.



City of Elko. 2006. Elko, Nevada Area Description: Housing Statistics. Economic Development Department. Elko, Nevada. Internet website: www.ci.elko.nv.us/econdev/area_description.htm#housing.
Clemmer, R. 1999. Anthropologists and Their Totems: Profiling and Paradigming in Great Basin Anthropology. <u>In</u> : Rucks, M., 2004, An Ethnographic Study Completed for the Cortez Gold Mines Pediment Project. pp. 1-44.
1990. From Ethnie to Ethnicity: Conditions Affecting White Knife Shoshone Culture and Identity in the Reservation Era. On file, Department of Anthropology. Nevada State Museum. <u>In</u> : Rucks, M. 2004, An Ethnographic Study Completed for the Cortez Gold Mines Pediment Project. pp. 1-44.
Clemmer, R. and O. Stewart. 1986. Treaties, reservations and Claims. <u>In</u> : Great Basin, edited by Warren L d'Azevedo, pp. 525-557. Handbook of North American Indians, Vol. 11, W. G. Sturtevant, genera editor. Smithsonian Institution, Washington, D.C.
Cooperative Extension and Lander County Conservation District (CELCCD). 2007. Personal communication between R. Davis, Cooperative Extension Educator, and A. Grow, Biologist, ENSR. March 20, 2007.
Cortez Gold Mines (CGM). 2007a. Letter from G. Fennemore, CGM, to V. Randall and D. Koontz, ENSR regarding responses to questions from February 28, 2007. March 6, 2007.
2007b. Memorandum providing a review of the stability of the east wall of the Cortez Hills Pit, to V. Randall (ENSR) from G. Fennemore (CGM). March 27, 2007.
2007c. Memorandum regarding geotechnical monitoring guidelines for the East Wall of the Cortez Hills Open Pit to G. Fennemore from J. Cabello. March 19, 2007.
2007d. Personal communication between G. Fennemore, Environmental Supervisor, and J. Burrell, Senior Hydrologist, ENSR, concerning proposed stormwater diversions in the Cortez Hills project area. May 25, 2007.
2007e. Responses to action items from May 2 and 3 meeting from G. Fennemore, CGM, to Chris Worthington, BLM, and V. Randall and D. Koontz, ENSR. May 16, 2007.
2006a. Hazardous Materials Spill and Emergency Response Plan. Version 1.0. May 2006.
2006b. Shape files for HC/CUEP, Dean Ranch, and CJVA provided to D. Koontz, ENSR. July 10, 2006.
2006c. Response to data request provided to V. Randall, ENSR. August 17, 2006.
. 2006d. Cortez Mercury Air Emissions Summary. Cortez Gold Mines Environmental Department.



Dobra, J. 1989. The Economic Impacts of Nevada's Mineral Industry: 1988 Update. Nevada Bureau of

Mines and Geology Special Publication L-9. University of Nevada-Reno, MacKay School of Mines.

On file at Bureau of Land Management, Battle Mountain Field Office.

Reno, Nevada.

- Dohrenwend, J. C. and B. C. Moring. 1991. Reconnaissance Photogeologic Map of Young Faults in the Winnemucca 1º by 2º Quadrangle, Nevada. USGS Miscellaneous Field Studies Map MF-2175, 1:250,000.
- Dohrenwend, J. C., B. A. Schell, C. M. Menges, B. C. Moring, and M. A. McKittrick. 1995. Reconnaissance Photogeologic Map of Young (Quaternary and Late Tertiary) Faults in Nevada. USGS Open-File Report 95-xxxl, 38:1 sheet at scale 1:1,000,000.
- Domnick, R. 2003. Society for Threatened Peoples. October 3, 2003. Internet website: http://www.gfbv.it/3dossier/ind-nord/shoshon-en.html.
- ENSR. 2006. Review of aerial photographs by J. Alstad, ENSR botanist. September 15, 2006.
- Enviroscientist. 2006. Air Quality Impacts Assessment Report. June 2006.
- Eureka County. 1997. Eureka County Master Plan. Eureka County Commission, Eureka, Nevada. January 1997.
- _____. 1985. Policy for Public Lands.
- Everett, D. E. and F. E. Rush. 1966. A brief appraisal of water resources of Grass and Carico Lake Valleys, Lander and Eureka Counties, Nevada: Nevada Department of Conservation and Natural Resources Water Resources Reconnaissance Series Report 37.
- EVS Environmental Consultants (EVS). 1998. South Pipeline Project Ecological Risk Assessment for the Pit Lake. Prepared for the U.S. Bureau of Land Management.
- Federal Emergency Management Agency (FEMA). 1988. National Flood Insurance Program, Flood Insurance Rate Maps, Lander County, Nevada (Unincorporated Areas). Community-Panel Numbers 320013 0475C and 0575C, revised July 15, 1988. Federal Emergency Management Agency, Map Service Center, Jessup, Maryland.
- Fenneman, N. M. 1931. Physiography of the Western United States. McGraw-Hill Book Company, New York, New York.
- Firby, J. R. 1999. Paleontological Characterization of the Falcon to Gonder 345-kV Transmission Project, Nevada. Sparks, Nevada.
- _____. 1991. Paleontological Assessment of the Cortez District Within Portions of the Battle Mountain and Elko Bureau of Land Management Districts, Nevada. Prepared for JBR Consultants Group. April 23, 1991.

- Foo, S. T., R. C. Hays, Jr., and J. K. McCormack. 1996. Geology and mineralization of the Pipeline Gold Deposit, Lander County, Nevada. Geology and Ore Deposits of the American Cordillera, Symposium Proceedings, Geological Society of Nevada.
- Fowler, C. S. 1986. Subsistence. <u>In</u>: Great Basin, edited by W. L. d'Azevedo, pp. 64-98. Handbook of North American Indians, Vol. 11, W. G. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Frankel A., C. Mueller, T. Barnhard, D. Perkins, E. V. Leyendecker, N. Dickman, S. Hanson, and M. Hopper. 1996. National Seismic-Hazard Maps: Documentation June 1996. USGS Open-File Report 96-532, 71 p.
- Gap Analysis Program (GAP). 2001. Southwest Regional Gap Analysis Project. Internet website: http://222.epa.gov/nerlesd1/land-sci/.
- Garside, L. J., R. H. Hess, K. L. Fleming, and B. S. Weimer. 1988. Oil and Gas Developments in Nevada. Nevada Bureau of Mines and Geology. Bulletin 104. 8 pp.
- Gelhaus, J. W. 2002. Annual Air Quality Data Summary of the Cortez Gold Mine, January 2001 December 2001.

Geomega. 2007a. Cortez Hills Expansion Project Pit Lake Chemistry Assessment. Prepared for Cortez

- Gold Mines. February 16, 2007.

 ______. 2007b. Screening-Level Ecological Risk Assessment for the Cortez Hills/Pediment Pit Lake. Draft Revision. Prepared for Cortez Gold Mines. June 14, 2007.

 _____. 2007c. Cortez Hills Expansion Project Waste Rock Assessment. Prepared for Cortez Gold Mines.
- _____. 2007d. Groundwater Quantity and Quality Assessment of the Cortez Hills Complex Underground Mine Alternative. Prepared for Cortez Gold Mines. February 21, 2007.

February 20, 2007.

- _____. 2007e. GIS file of maximum extent of the predicted 10-foot cumulative groundwater drawdown contour for Pipeline/Cortez Hills provided to V. Randall, ENSR. February 26, 2007.
- _____. 2007f. Groundwater Flow Modeling Report for the Cortez Hills Expansion Project. Prepared for Cortez Gold Mines. March 12, 2007.
- _____. 2007g. Revised GIS files of Figures 6-27 and 6-28 from the March 12, 2007, Groundwater Model Report, provided to V. Randall, ENSR. April 30, 2007.

2007h. Screening-Level Ecological Risk Assessment for Fish at the Proposed Cortex Hills/Pediment Pit Lake. Memorandum from P. Hunter, Geomega, to G. Fennemore et al., Cortex Context and Conte
Gold Mines. June 4, 2007.
2007i. Response to BLM Comments on Water Resource Related Documents for CGM's Cortex Hills Expansion Project. June 15, 2007.
2006a. Cortez Hills Expansion Project, Waste Rock Assessment. Prepared for Cortez Gold Mines February 20, 2006.
2006b. 2005 Annual Update of Pipeline Groundwater Flow Model. Prepared for Cortez Gold Mines. May 9, 2006.
2006c. Letter report from B. Hanna and D. Stone, Geomega, to G. Fennemore and S. Schoen Cortez Gold Mines, regarding evaluation of in-pit placement of Cortez Hills/Pediment waste rock July 10, 2006.
2006d. Transmittal of backfill figures from D. Stone, Geomega, to D. Koontz, ENSR August 15, 2006.
2006e. Cortez Hills Expansion Project Baseline Characterization Report. Prepared for Cortez Gold Mines. September 12, 2006.
2006f. Memorandum to G. Fennemore and S. Schoen, Cortez Gold Mines, from C. Dacey and D Stone, Geomega, regarding Cortez Hills Expansion Project – Water Rights Inventory Update October 17, 2006.
2006g. Memorandum to G. Fennemore and S. Schoen, Cortez Gold Mines, from D. Stone and S Kosinski, Geomega, regarding Cortez Hills Expansion Project EIS – Groundwater Modeling Predictions for Proposed Action and No Action Alternative Scenarios.
2003a. Pediment Project Baseline Characterization. Prepared for Cortez Gold Mines March 28, 2003.
2003b. 2002 Analysis of Groundwater Behavior at the Cortez Pit and Mill #1 Area, Eureka and Lander Counties, Nevada. Prepared for Cortez Gold Mines. October 17, 2003.
2002. Pipeline/South Pipeline Pit Expansion Project Baseline Characterization Report. Prepared for Cortez Gold Mines.
Gilluly, J. and H. Masursky. 1965. "Geology of the Cortez Quadrangle Nevada." U.S. Geological Survey Bulletin 1175, 117 p.

- Golder Associates, Inc. (Golder). 2007. Memorandum regarding geotechnical data summary, Cortez Hills Pit East Wall from T. Byers, Golder, to G. Fennemore, Cortez Gold Mines. March 19, 2007.
 ______. 2006. Draft Closure Plan, Cortez Hills Underground Project Crescent Valley, Nevada. August 21, 2006.
 ______. 2005. Pit Slope Design Recommendations Pipeline Pit Phase 9 Expansion. Submitted to Cortez
- Grindal, S. D., J. L. Morissette, R. M. Brigham. 1999. Concentration of Bat Activity in Riparian Habitats Over an Elevational Gradient. Canadian Journal of Zoology, 77:972-977.

Gold Mines, Inc. November 2005.

- Gustin, M., M. F. Coolbaugh, M. A. Engle, B. C Fitzgerald, R. E. Keislar, S. E. Lindberg, D. M. Nacht, J. Quashnick, J. J. Rytuba, C. Sladek, H. Zhang, and R. E. Zehner. 2003. Atmospheric Mercury Emissions from Mine Wastes and Surrounding Geologically Enriched Terrains. <u>In</u>: Environmental Geology (2003) 43:339-351.
- Hall, D. B. 2000. Bat Monitoring on the Nevada Test Site in South-central Nevada. Transactions of the Western Section of the Wildlife Society, 36:8-14.
- Hardesty, D. and E. M. Hattori. 1982. Archeological Studies in the Cortez Mining District. Bureau of Land Management, Nevada. Contributions to the Study of Cultural Resources: Technical Report 8. In: An Historic Context for the Cortez Joint Venture Project Area, Lander and Elko Counties, Nevada. Prepared by K. R. McGuire, V. Bengston, R. Reno, and C. Zeier. Pp. 110-112.
- Harrill, J. R. and D. E. Prudic. 1998. Aquifer Systems in the Great Basin Region of Nevada, Utah, and Adjacent States Summary Report. U.S. Geological Survey Professional Paper 1409-A. 66 p.
- Harris, J. S. 1963. The White Knife Shoshoni of Nevada. <u>In</u>: Cultural Resources Inventory of 570 Acres for Cortez Gold Mines Pediment Project in Lander County, Nevada. BLM Battle Mountain Field Office Report No. BLM6-2369(P). April 2003.
- Harvey, M. J., J. S. Altenbach, and T. L. Best. 1999. Bats of the United States. Published by the Arkansas Game and Fish Commission in cooperation with the Asheville Field Office, U.S. Fish and Wildlife Service. 64 pp.
- Hattori, E. M. and M. S. Thompson. 1987. Using Dendrochronology for Historical Reconstruction in the Cortez Mining District, North Central Nevada. <u>In</u>: An Historic Context for the Cortez Joint Venture Project Area, Lander and Elko Counties, Nevada. Prepared by K. R. McGuire, V. Bengston, R. Reno, and C. Zeier. Pp. 110-112.
- Herron, G. B., C. A. Mortimore, and M. S. Rawlings. 1985. Nevada Raptors Their Biology and Management. Nevada Department of Wildlife. 114 pp.

- Holzworth, G. C. 1972. Mixing Heights, Wind Speeds, and Potential for Urban Air Pollution Throughout the Contiguous United States. USEPA Office of Air Programs, Research Triangle Park, North Carolina, Publication Number AP-101.
- Hultkrantz, A. 1986. Mythology and Religious Concepts. <u>In</u>: Great Basin, edited by W. L. d'Azevedo, pp. 630-640. Handbook of North American Indians, Vol. 11, W. G. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- HydroGeoLogic. 1996. MODFLOW-SURF ACT, Version 2.2. Code documentation report. Herndon, Virginia: HydroGeoLogic Inc.
- Inland Gold and Silver Corporation. 1989. 1989 Exploration Plan of Operations Toiyabe Mine Area Lander County, Nevada. Submitted to Bureau of Land Management Battle Mountain District Office, Battle Mountain, Nevada. May 1989.
- Intermountain Research. 1994. Behind the Argenta Rim: Prehistoric Land Use in the Whirlwind Valley and the Northern Shoshone Range. On file, BLM Battle Mountain Field Office, Battle Mountain, Nevada.
- Jaffe, D., E. Prestbo, P. Swartzensdruber, P. Weiss-Penzias, S. Kato, A. Takami, S. Hatakeyama, and Y. Kajii. 2005. Export of Atmospheric Mercury from Asia 2005. <u>In</u>: Atmospheric Environment 39 (2005) 3029-3038.

JBR Environmental Consultants, Inc. (JBR). 2007a. Letter Regarding Clarification of Threatened,

Endangered, Sensitive, and Candidate Vegetation Species for the Cortez Hills Pediment Baseline Survey Area. April 19, 2007.
______. 2007b. Cortez Hills Pediment Baseline Study Additional Surveys, JBR Project Number 07.00069.01. Letter Report. May 16, 2007.
_____. 2007c. Cortez Gold Mines Pediment Project, Seep & Spring Monitoring, Fall Quarter 2006. October 28, 2005.

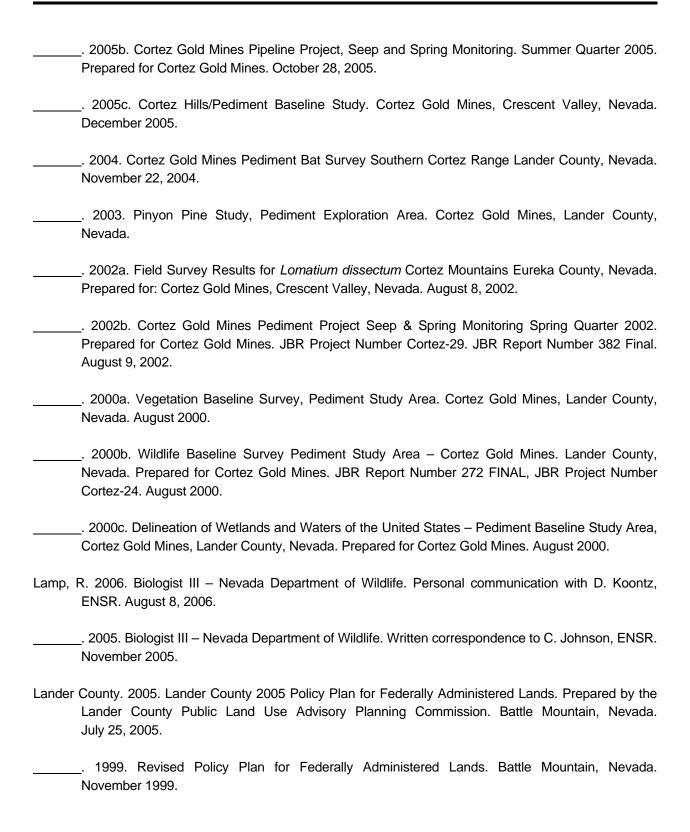
_____. 2007d. JBR seep and spring riparian/wetland acreage emailed by G. Fennemore, CGM, to V. Randall, ENSR. June 15, 2007.

______. 2006a. Jurisdictional Waters Survey and Report. Letter to R. Gebhart, U.S. Army Corps of Engineers. November 13, 2006.

____. 2006b. Solid and Hazardous Waste Management Plan.

_____. 2006c. Horse Canyon Area Seep and Spring Survey, Eureka County, Nevada. February 7, 2006.

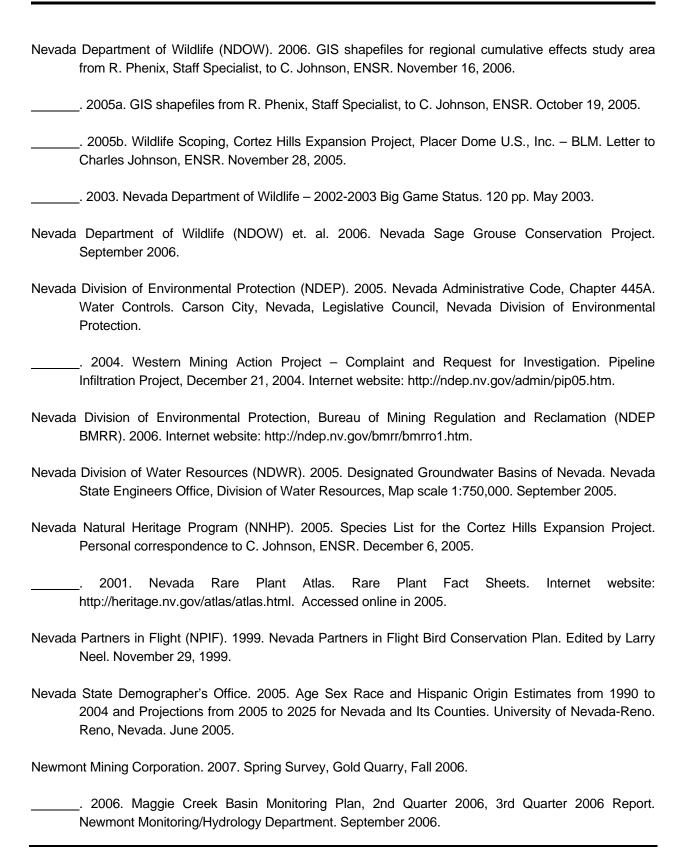
____. 2005a. Cortez Gold Mines Pediment Project, Seep and Spring Monitoring. Fall Quarter 2004. Prepared for Cortez Gold Mines. January 10, 2005.



- _____. 1997. Lander County Master Plan. Adopted by the Lander County Commission. Battle Mountain, Nevada. August 25, 1997.

 _____. 1990. Zoning Ordinance. Battle Mountain, Nevada. 1990 as revised.
- Lane, C. 2003. Realty Specialist, Battle Mountain Field Office, Bureau of Land Management. Battle Mountain, Nevada. Personal communication with B. Strom, ENSR. March 3, 2003.
- Maurer, D. K., R. W. Plume, J. M. Thomas, and A. K. Johnson. 1996. Water Resources and Effects of Changes in Ground-Water Use Along the Carlin Trend, North-Central Nevada. U. S. Geological Survey Water-Resources Investigations 96-4134.
- Maxey, G. B. and T. E. Eakin. 1949. Groundwater in White River Valley, White Pine, Nye, and Lincoln Counties, Nevada. State of Nevada, Office of the State Engineer, Water Resources Bulletin No. 8.
- McCormack, J. C. and R. C. Hays. 1996. Crescent Valley: A Model for Reconstruction of District Mineralization in the Basin and Range. Geology and Ore Deposits of the American Cordillera, Symposium Proceedings, Geological Society of Nevada.
- McDaniel, M. 2006a. Grazing allotment shapefiles provided to J. Alstad, ENSR. May 1, 2006.
- ______. 2006b. BLM Rangeland Specialist, Battle Mountain Field Office. Personal communication with J. Alstad, ENSR. June 26, 2006.
- McDonald, M. G. and A. W. Harbaugh. 1988. A modular three-dimensional finite-difference ground-water flow model. In Techniques of Water-Resources Investigations, Book 6. Washington, D.C.: U.S. Geological Survey/U.S. Government Printing Office.
- McGonagle, R. L. 2005. Programmatic Agreement Among the Bureau of Land Management, Battle Mountain and Elko Field Office, the Nevada State Historic Preservation Office, and Cortez Joint Venture dba Cortez Gold Mines Regarding the Treatment of Historic Properties During Cortez Gold Mines Mineral Exploration and Development in Eureka and Lander Counties, Nevada. Received October 20, 2005.
- ______. 2001. Addendum to Ethnographic Report BLM 6-2174, BLM 6-2174-2, Government-to-Government Consultation, Cortez Joint Venture Horse Canyon/Cortez Unified Exploration Project NVN066621.
- McGuire, K. R., and V. Bengston, R. Reno, and C. Zeier. 2005. An Historic Context for the Cortez Joint Venture Project Area, Lander and Elko Counties, Nevada. Prepared for Cortez Gold Mines. April 2005 Draft.
- Mears, M. 2007. Eureka County Assessor. Eureka, Nevada. Personal communication with B. Strom, ENSR, March 13, 2007.

- Miller, J. 1983. Basin Religion and Theology: A Comparative Study of Power (Puha). Journal of California and Great Basin Anthropology 5 (1,2):6686 In: Bengston G. 2003, Northern Paiute and Western Shoshone Land Use in Northern Nevada: A Class I Ethnographic/Ethnohistoric Overview. pp. 78-79.
- Muffler, J. P. 1964. "Geology of Frenchi Creek Quadrangle North-Central Nevada." U.S. Geological Survey Bulletin 1179, 99 p.
- Nacht, D. M. and M. S. Gustin. 2004. Mercury Emissions from Background and Altered Geologic Units throughout Nevada. In: Water, Air, and Soil Pollution, 151:179-193, 2004.
- National Climatic Data Center National Weather Service Cooperative Network. 2006. Climate data. Internet website: http://www.wrcc.dri.edu. Accessed April 8, 2006.
- National Oceanic and Atmospheric Administration [NOAA]. 1990. Local Climatological Data, Annual Summary with Comparative Data for Elko, Nevada.
- National Park Service (NPS). 1995. National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation. Revised. National Park Service Interagency Resources Division, National Register Branch, Washington, D. C.
- Natural Resources Conservation Service (NRCS). 2006. Soil Survey Staff, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Lander and Eureka Counties, Nevada. Internet website: http://solidatamart.nrcs.usda.gov. Accessed 2006.
- Nevada Department of Agriculture (NDA). 2007. Noxious Weed Definition Provided in NDA's Website. Internet website: http://www.leg.state.nv.us/NRS/NRS-555.html#NRS555Sec005.
- Nevada Department of Agriculture Plant Industry Division (NDA-PID). 2006. Noxious Weed List. Internet website: http://agri.nv.gov/nwac/PLANT_NoxWeedList.htm.
- Nevada Department of Conservation and Natural Resources, Division of Environmental Protection. 2005. Pipeline Infiltration Project Investigation. March 25, 2005.
- Nevada Department of Conservation and Natural Resources. 1992. Recreation in Nevada. Division of State Parks. Carson City, Nevada.
- Nevada Department of Employment, Training, and Rehabilitation (NDETR). 2006. Nevada Labor Market Information. Research and Analysis Bureau. Carson City, Nevada. Internet website: www.nevadaworkforce.com.
- Nevada Department of Transportation (NDOT). 2005. 2004 Annual Traffic Report. Traffic Information Division. Carson City, Nevada.



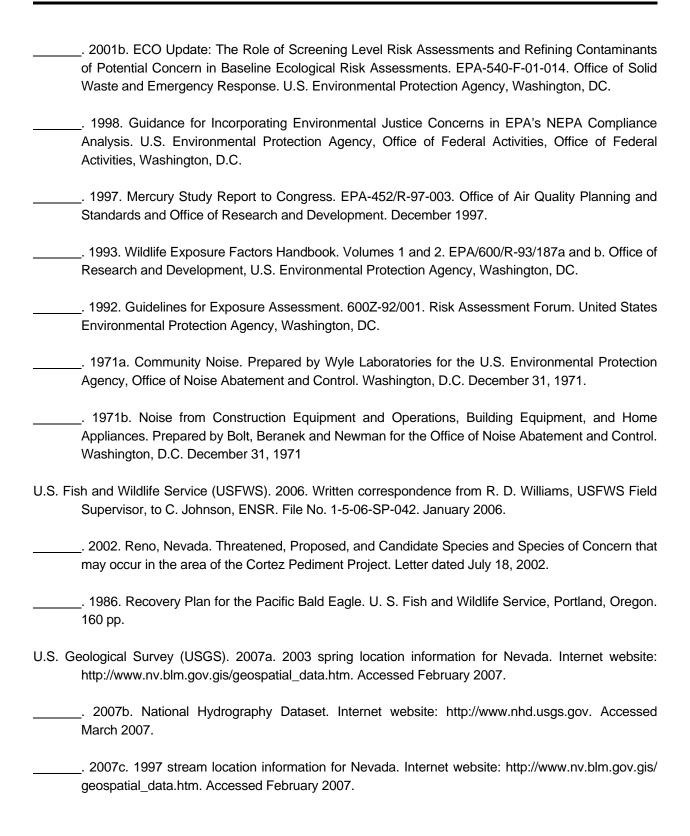
- Newmont Services Limited. 1987. Final Environmental Assessment Rain Project. Prepared for Newmont Gold Company. March 1987.
- Nichols, W. D. 2000. Regional Ground-Water Evapotranspiration and Ground-Water Budgets, Great Basin, Nevada. U.S. Geological Survey Professional Paper 1628.
- Patterson, E. B., L. A. Ulph, and V. Goodwin. 1969. Nevada's Northeast Frontier. Western Printing and Publishing Company Reprinted 1991 by University of Nevada Press, Reno, Nevada, and the Northeastern Nevada Historical Society. <u>In</u>: McGuire et al. 2005, An Historic Context for the Cortez Joint Venture Project Area, Lander and Elko Counties, Nevada. pp 47-55.
- Plume, R. W. 1996. Hydrogeologic Framework of the Great Basin Region of Nevada, Utah, and Adjacent States. U.S. Geological Survey Professional Paper 1409-B.
- Podborny, M. 2002. Nevada Department of Wildlife. Personal communication with C. Johnson, ENSR, relative to big game species. December 12, 2002.
- Poland, J. F. 1984. Mechanics of Land Subsidence due to Fluid Withdrawal. Guidebook to Studies of Land Subsidence Due to Ground-water Withdrawal. UNESCO studies and reports in hydrology.
- Prudic, D. E., J. R. Harrill, and T. J. Burbey. 1995. "Conceptual Evaluation of Regional Ground-Water Flow in the Carbonate-Rock Province of the Great Basin, Nevada, Utah, and Adjacent States. U.S. Geological Survey Professional Paper 1409-D, 102 p.
- Quick, P. McW. 1995. Summary Report: Native American Consultation for Cortez Gold Pipeline Project, ICF Kaiser Engineers. On file at Bureau of Land Management, Battle Mountain, Nevada.
- ______. 1992. Summary of Native American Consultation Activities for Cortez EIS. On file at Bureau of Land Management, Battle Mountain, Nevada.
- Ratliff, J. 2006. Personal communication with J. Alstad, Vegetation Specialist, ENSR. June 15, 2006.
- Resource Concepts, Inc. 1993. A Historic Context for the Cortez Mining District, Lander and Eureka Counties, Nevada. Edited by C. Zeier. Contributions by D. Hardesty, University of Nevada-Reno, M. Brodhead, University of Nevada-Reno, E. Hattorio.
- Riverside Technology inc. (RTi). 1998. Preliminary Evaluation of Potential Change in Flow in the Humboldt River from the Projected Barrick Goldstrike Mine Discharge. Fort Collins, Colorado.
- _____. 1994. Seep, Spring and Stream Inventory, Barrick Goldstrike Mine Dewatering Study Area, Volumes I and II. Fort Collins, Colorado.

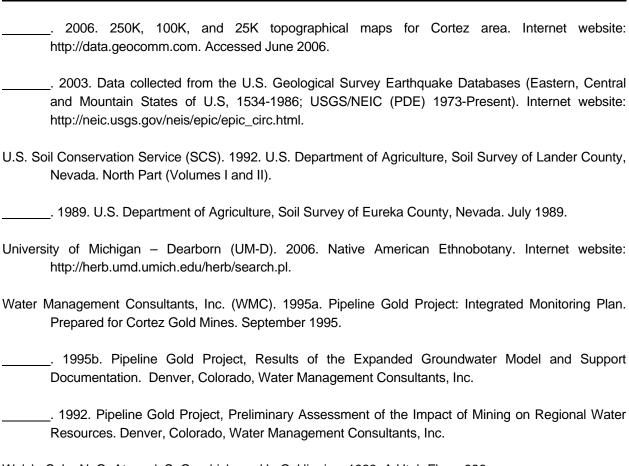
- Roberts, R. J., K. M. Montogomery, and R. E. Lehner. 1967. Geology and Mineral Resources of Eureka County, Nevada. Nevada Bureau of Mines and Geology Bulletin 64. 152 p.
- Rucks, M. 2004. An Ethnographic Study Completed for the Cortez Gold Mines Pediment Project. Summit Envirosolutions, Inc., Carson City, Nevada. April 23, 2004.
- ______. 2001. Report on Ethnographic Study Conducted to Facilitate Consultation with Western Shoshone Tribal Governments of Central Nevada for the Sierra Pacific Power Falcon to Gonder 325-kV Transmission Line. Summit Envirosolutions, Inc., Carson City, Nevada.
- ______. 2000. A Report on Ethnographic Study Conducted to Assist the Bureau of Land Management in the Evaluation of Traditional Cultural Properties in the Mt. Tenabo Area of Lander and Eureka Counties, Nevada. Summit Envirosolutions, Inc., Carson City, Nevada.
- Rusco, M. K. 2000. Background Ethnographic Study for Cortez Joint Venture. Prepared for JBR Environmental Consultants, Inc.
- ______. 1992. Background Study for BLM Consultation with Native Americans on Proposed Mining Development in the Mule Canyon Project Area, Shoshone Range within the Traditional Territory of the *Tosawihi* People, Western Shoshone Nation. Archaeological Research Services, Inc., Virginia City, Nevada. On file, BLM Elko District, Elko, Nevada. September 23, 1992.
- Rusco, M. K. and S. Raven. 1992. Background study for BLM consultation with Native Americans on Proposed Mining Development within the Tosawihi (White Knife) Quarry North of Battle Mountain, Nevada, in the Traditional Land of the Tosawihi People, Western Shoshone Nation. Archaeological Research Services, Inc., Virginia City, Nevada. On file, BLM Elko District.
- Rush, R. E. 1968. Index of hydro graphic areas in Nevada. Nevada Division of Water Resources Information Report 6.
- Sample, B. E., D. M. Opresko, and G. W. Suter II. 1996. Toxicological Benchmarks for Wildlife: 1996 Revision. Oak Ridge National Laboratory, Oak Ridge, Tennessee. 227 pp. ES/ER/TM-86/R3.
- Schmidt, S. 1999. Activity patterns of California leaf-nosed and other bats at wildlife water developments in the Sonoran desert. Thesis submitted to the School of Renewable Natural Resources, University of Arizona, Tucson, Arizona. 119 pp.
- Seigneur, C., K. Vijayarachavan, K. Lohman, P. Karamchandani, and C. Scott. 2004. Global Source Attribution in the United States. <u>In</u>: Environmental Science and Technology, Vol. 38, No. 2.
- Shepherd, L. 2003. Equipment Operator, Lander County Road & Bridge Department, Battle Mountain, Nevada. Personal communication with B. Strom, ENSR. March 6, 2003.

- Sherve, J. 2007. Bureau of Land Management, Battle Mountain Field Office. Personal communication with P. Plumley, ENSR, regarding dewatering and water management activities at mines within the Native American traditional values regional cumulative effects study area. February 26, 2007.
- ______. 2006. Bureau of Land Management, Battle Mountain Field Office. Personal communication with J. Burrell, ENSR, regarding reclamation efforts by Cortez Gold Mines in the Cortez area. August 25, 2006.
- Simunek, J., M. T. van Genuchten, and M. Sejna. 2005. The HYDRUS-ID software package for simulating the one-dimensional movement of water, heat, and multiple solutes in variably saturated media, Version 3.0. Dept. of Environmental Sciences, University of California Riverside, Riverside, California.
- Siskind. D. 1994. Safe Blast Vibrations for Structures, a 1990s Perspective. Unpublished.
- Smith, S. 2006. Wilderness Specialist. Bureau of Land Management, Nevada State Office. Personal communication with B. Strom, ENSR. April 14, 2006.
- Sobek, A. A., W. A. Schuller, J. R. Freeman, and R. M. Smith. 1978. Field and Laboratory Methods Applicable to Overburden and Minesoils. EPA-600/2-78/054.
- Soil Conservation Service (SCS). 1992. Soil Survey of Lander County, Nevada, North Part. USDA Soil Conservation Service, in cooperation with the USDI Bureau of Land Management and the University of Nevada Agricultural Experiment Station. Nevada State Conservationist, USDA Natural Resources Conservation Service, Reno, Nevada.
- ______. 1989. Soil Survey of Eureka County Area, Nevada. USDA Soil Conservation Service, in cooperation with the USDI Bureau of Land Management and the University of Nevada Agricultural Experiment Station. Nevada State Conservationist, USDA Natural Resources Conservation Service, Reno, Nevada.
- SRK Consulting (SRK). 2005. Noxious Weed Management Plan. Prepared for Cortez Gold Mines, Inc. August 2005.
- ______. 2004. Geochemical Evaluation of Heap Rinsing of the Gold Acres Help, Cortez Joint Venture, Nevada. Prepared for Cortez Gold Mines. September 2004.
- Stevens, H. 2006. Te-Moak Tribe of Western Shoshone. Resolutions of the Governing Body of the Te-Moak Tribe of Western Shoshone Indians of Nevada. Resolution No: 06-TM-02. February 1, 2006.
- Steward, J. H. 1941. Culture Element Distribution, XIII: Nevada Shoshone. University of California Anthropological Records 4(2):209-360. <u>In</u>: McGuire et al. 2005, An Historic Context for the Cortez Joint Venture Project Area, Lander and Elko Counties, Nevada. pp 47-55.

An	1940. Native Cultures of the Intermontane (Great Basin) area, <u>In</u> : Essays in Historical athropology of North America, Published in Honor of J. R. Swanton. pp. 445-502. Smithsonian scellaneous Collections 100. Washington.
	938. Basin-Plateau Aboriginal Sociopolitical Groups. Bureau of American Ethnology Bulletin 120. eprinted in 1997. University of Utah Press, Salt Lake City, Utah.
An	937. Linguistic Distributions and Political Groups of the Great Basin Shoshoneans. American athropologist 39(4):625-634. In: McGuire et al. 2005, An Historic Context for the Cortez Joint enture Project Area, Lander and Elko Counties, Nevada. pp.47-55.
	H. 1980. Geology of Nevada, A Discussion to Accompany the Geologic Map of Nevada. Nevada reau of Mines and Geology Special Publication 4, 136 p.
	H. and E. H. McKee. 1977. Geology and Mineral Deposits of Lander County, Nevada, Part 1, eology. Nevada Bureau of Mines and Geology Bulletin 88, 106 p.
	T., T. Leeds, R. C. Tunney, G. A. Cusack, and S. A. Skidmore. 1991. Hydrology of the Carlin end, Northeastern Nevada – a preliminary report. Carlin, Nevada: Newmont Gold Company.
an Ne	er, D. W. 1986. Geology and Mineralization of the Beowawe-White Canyon Area, Eureka d Lander Counties, Nevada. <u>In</u> : Precious-metal mineralization in hot springs systems, evada-California, Report 41, edited by J. V. Tingley and H. F. Bonham, J.: Nevada Bureau of nes and Geology.
	H., J. W. Procter, and D. J. Howell. 1970. Diurnal Body Weight Loss and Tolerance of Weight ss in Five Species of Myotis. J. Mamm. 51:302-309.
Re	, T. 2006. Nevada Division of Environmental Protection, Bureau of Mining Regulation and eclamation, Reclamation Branch. Personal communication with J. Burrell, ENSR, regarding clamation efforts by Cortez Gold Mines in the Cortez area. August 24, 2006.
eliç	nvirosolutions, Inc. 2007a. Email correspondence to K. Munson, ENSR, regarding list of potentially gible and eligible sites located to date within or adjacent to the proposed project area. Provided to NSR in February 2007.
. 20	007b. Shapefile provided to K. Munson, ENSR. May 14, 2007.
the	2000. A Report on Ethnographic Study Conducted to Assist the Bureau of Land Management in E Evaluation of Traditional Cultural Properties in the Mount Tenabo Area of Lander and Eureka Bounties, Nevada. Prepared for Cortez Gold Mines, Inc. November 13, 2000.

- Suter, G. W. II and C. L. Tsao. 1996. Toxicological Benchmarks for Screening of Potential Containments of Concern for Effects on Aquatic Biota on Oak Ridge Reservation: 1996 Revision. Oak Ridge National Laboratory, Oak Ridge, Tennessee. 104 pp. ES/ER/TM-96/R2.
- Terres, J. K. 1991. The Audubon Society Encyclopedia of North American Birds. New York. 1,109 pp.
- Teske, D. 2006. Secretary to the Lander County Commissioners, Battle Mountain, Nevada. Personal communication with B. Strom, ENSR. April 14, 2006.
- Thomas, D. H. L. S. A. Pendleton, and S. C. Cappannari. 1986. Western Shoshone. <u>In</u>: Great Basin, edited by W. L. d'Azevedo, pp. 161-283. Handbook of North American Indians, Vol. 11, W. C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Thomas, J. M., J. L. Mason, J. D. Crabtree. 1986. Ground-water Levels in the Great Basin Region of Nevada, Utah, and Adjacent States. U.S. Geological Survey Hydrologic Investigations Atlas 694-B.
- Transportation Research Board (TRB). 2000. Highway Capacity Manual 2000. National Research Council, Washington, D.C.
- Turner, R. M., W. J. Bawiec. 1991. Geology of Nevada: A Digital Representation of the 1978 Geologic Map of Nevada. U.S. Geological Survey Digital Data Series DDS-2. U.S. Geological Survey.
- U.S. Army Corps of Engineers (USACE). 2002. Waters of the United States Jurisdictional Determination No. 200225061. Issued June 25, 2002.
- U.S. Census Bureau. 2005. Small Area Income and Poverty Estimates: Estimates for Nevada Counties, 2003. U.S. Department of Commerce, Census Bureau. Washington, D.C. Final release date: November 2005. Internet website: http://www.census.gov/cgi-bin/saipe/saipe.cgi.
- . 2000. 1999 Income Data. Internet website: http://www.census.gov.
- U.S. Department of Agriculture Natural Resources Conservation Service (USDA-NRCS). 2006. Plants Database. Internet website: http://plants.usda.gov/java/profile?symbol.
- U.S. Department of Transportation (USDOT). 1993. Information Assistance Office, Washington, D.C.
- U.S. Environmental Protection Agency (USEPA). 2002. Generic Assessment Endpoints for Ecological Risk Assessments (External Review Draft). EPA/630/P-02/004A. Risk Assessment Forum, United States Environmental Protection Agency, Washington, DC.
- ______. 2001a. RCRA, Superfund & EPCRA; Call Center Training Module Introduction to: Definition of Solid Waste and Hazardous Waste Recycling (40 CFR §§261.2 and 261.9). Office of Solid Waste and Emergency Response (5305W) EPA530-K-02-007I. Updated October 2001. Internet website: http://www.epa.gov/epaoswer/hotline/training/defsw.pdf. Accessed April 1, 2006.





- Welsh, S. L., N. O. Atwood, S. Goodrich, and L. C. Higgins. 1993. A Utah Flora. 986 pp.
- WESTEC. 1997. Geotechnical Investigation for Pipeline Gold Project Infiltration Gallery. Reno, Nevada.
- Western Regional Climate Center. 2006. Historical Climate Information, Nevada Climate Summaries. Western Regional Climate Center, Reno, Nevada. Internet website: http://www.wrcc.dri.edu/summary/climsmnv.html. Accessed April 2006.
- Winograd, I. J. and W. Thordarson. 1975. Hydrogeologic and Hydrochemical Framework, South-central Great Basin, Nevada-California, with Special Reference to the Nevada Test Site. U.S. Geological Survey Professional Paper: 712-C.
- Wooley, D. R. 1998. Clean Air Handbook A Practical Guide to Compliance. Eighth Edition. West Group, St. Paul, Minnesota.
- Zehner, R. E. and M. S. Gustin. 2002. Estimation of Mercury Vapor Flex from Natural Substrate in Nevada. <u>In</u>: Environmental Science and Technology, Vol. 36, No. 19, 2002.

- Zeier, C. 1993. A Historic Context for the Cortez Mining District, Lander and Eureka Counties, Nevada. Edited by C. Zeier, Resource Concepts, Inc., with contributions by Dr. D. Hardesty, PhD., Dr. M. Brodhead, PhD., and Dr. E. Hattori, PhD. June 1993.
- Zones, C. P. 1961. Groundwater Potentialities in the Crescent Valley, Eureka and Lander Counties, Nevada. U.S. Geological Survey Water-Supply Paper 1581.

7.0 GLOSSARY

Acre-feet The volume of water required to cover 1 acre to a depth of 1 foot;

equivalent to a volume of 43,560 cubic feet.

Adverse Effect (under the National Historic Preservation

Act)

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places in a manner that would diminish the integrity of the property's location, design,

setting, materials, workmanship, feeling, or association.

Allotment A unit of land suitable and available for livestock grazing that is managed

as one grazing unit.

Alluvial Pertaining to material or processes associated with transportation or

deposition of soil and rock by flowing water (e.g., streams and rivers).

Alluvium Unconsolidated or poorly consolidated gravel, sands, and clays deposited

by streams and rivers on riverbeds, floodplains, and alluvial fans.

Ambient The environment as it exists at the point of measurement and against

which changes or impacts are measured.

Ambient Noise Total, all-encompassing noise associated with a given environment and

time.

American Indian Religious Freedom Act of 1978

Act establishing national policy to protect and preserve for Native Americans their inherent right of freedom to believe, express, and exercise their traditional religions, including the rights of access to religious sites, use and possession of sacred objects, and freedom to worship through

traditional ceremonies and rites.

Animal Unit Months Grazing of a cow/calf, sheep/lamb, or other animal pair for 1 month.

Archaeological Resources Protection Act (ARPA) A federal law, passed in 1979 to protect archaeological resources on

public and Indian lands.

Area of Potential Effects (APE) Defined in Section 106 regulations as the geographic area or areas within

which an undertaking may directly or indirectly cause alterations in the

character or use of historic properties, if any such properties exist.

Aquifer A body of rock that is sufficiently permeable to conduct groundwater and to

yield economically significant quantities of water to wells and springs.

7.0 GLOSSARY

(e.g., other than mining noise if mining noise were being investigated).

Barren Solution In a metallurgical process, the solution left after the mineral value has

been removed.

Bedrock Any solid rock exposed at the surface or overlain by unconsolidated

material.

BLM Sensitive Species Previous Category 2 (C2) candidate species.

Code of Federal Regulations The compilation of federal regulations adopted by federal agencies

through a rule-making process.

Carrying Capacity The maximum population of an animal that an ecosystem can support

without being degraded.

Community Noise Equivalent

Level

 L_{eq} for a 24-hour, midnight to midnight period with 5 dBA added to the sound levels from 7:00 p.m. to 10:00 p.m. and 10 dBA added to the sound

levels between 10:00 p.m. and 7:00 a.m.

Cone of Depression The depression of groundwater levels around a pumping well caused by

the withdrawal of water.

Confining Bed A layer of rock having very low hydraulic conductivity that hampers the

movement of water into and out of an aquifer.

Critical Habitat Habitat that is present in minimum amounts and is the determining factor

in the potential for population maintenance and growth.

Cultural Resources Archaeological sites, architectural structures or features, traditional use

areas, and Native American sacred sites or special use areas.

Cumulative Effects The combined environmental impacts that accrue over time and space

from a series of similar or related individual actions, contaminants, or projects. Although each action may seem to have a negligible impact, the combined effect can be significant. Included are activities of the past, present, and reasonably foreseeable future; synonymous with cumulative

impacts.

Decibel (dB) A unit used in expressing ratios of electric or acoustic power; the relative

loudness of sound.

Decibel, A-weighting (dBA)

The most commonly used frequency weighting measure; simulates human sound perception and correlates well with human perception of the annoying aspects of noise.

Direct Impacts (under the National Environmental Policy Act)

Impacts that are caused by the action and occur at the same time and place (40 Code of Federal Regulations 1508.7); synonymous with direct effects.

Discharge

The volume of water flowing past a point per unit time, commonly expressed as cubic feet per second, gallons per minute, or million gallons per day.

Disturbed Area

An area where natural vegetation and soils have been removed.

Dolomite

A mineral, calcium magnesium carbonate (CaMg[CO₃]₂), or a rock composed largely of dolomite.

Drainage

The natural channel through which water flows some time of the year; natural and artificial means for affecting discharge of water as by a system of surface and subsurface passages.

Drawdown

The lowering of the water level in a well as a result of withdrawal; the reduction in groundwater level at a point caused by the withdrawal of water from an aquifer.

Effect (under the National Historic Preservation Act)

An effect on one of the characteristics that may make a historic property eligible for inclusion in the National Register of Historic Places.

Effective Perceived Noise Level Measurements consisting of a frequency weighting scheme considerably more complicated that the A-weighting filter used to determine sound exposure levels (SELs). They incorporate a penalty for the presence of pure tones to account for people's increased annoyance with single frequencies, such as the tones emanating from the compressor of turbofan engines. Thus, although specific values must be determined by computer analysis of a signal, effective perceived noise levels has been adopted for certain specialized uses involving the noise of individual aircraft over-flights.

Endangered Species

Any species in danger of extinction throughout all or a significant portion of its range. Plant or animal species identified by the Secretary of the Interior as endangered in accordance with the 1973 Endangered Species Act.

Ephemeral Stream

A stream or portion of a stream that flows briefly in direct response to precipitation in the immediate vicinity and whose channel is at all times above the water table.

Erosion The wearing away of soil and rock by weathering, mass wasting, and the action of streams, glaciers, waves, wind, and groundwater. Executive Order 11593 of Requires federal agencies to survey properties under their jurisdiction and 1971. Protection and nominate appropriate candidates to the National Register of Historic Enhancement of the Cultural Places. **Environment** Executive Order 13287 of Initiative affirming the federal government's leadership role in protecting 2003. Preserve America historic properties. Among the goals of Preserve America are to promote partnerships for the use and rehabilitation of historic properties, and to assist in developing heritage tourism opportunities. **Exploration** The search for economic deposits of minerals, ore, and other materials through practices of geology, geochemistry, geophysics, drilling, and/or mapping. Fault A fracture in rock units along which there has been displacement. Flocculant A reagent added to water to aggregate minute suspended particles so that they may precipitate out of suspension. Floodplain That portion of a river valley, adjacent to the channel, that is built of sediments deposited during the present regimen of the stream and that is covered with water when the river overflows its banks at flood stages. **Fugitive Dust** Dust particles suspended randomly in the air from various sources including road travel, excavation, and rock loading operations. The study of the distribution and amounts of the chemical elements in Geochemistry minerals, ores, rocks, soils, water, and the atmosphere, and their circulation in nature on the basis of the properties of their atoms and ions. Geotechnical A branch of engineering concerned with the engineering design aspects of slope stability, settlement, earth pressures, bearing capacity, seepage control, and erosion. **Groundwater Recovery** An increase in groundwater levels such that the groundwater elevations rise above initial baseline groundwater elevations. Used to refer to an increase in water levels following drawdown. **Groundwater Table** The surface between the zone of saturation and the zone of aeration; that surface of a body of unconfined groundwater at which the pressure is equal to that of the atmosphere.

Habitat A specific set of physical conditions that surround a single species, a

group of species, or a large community. In wildlife management, the major components of habitat are considered to be food, water, cover, and living

space.

Heap Leaching The process of recovering gold and other metals from low-grade ores by

leaching ore that has been mined and placed on a specially prepared pad. A chemical solution is applied through low volume emitters, and the

metal-bearing leachate solution percolates and is collected.

Historic Property Defined by the National Historic Preservation Act as any property included

in or eligible for the National Register of Historic Places.

Hydraulic Conductivity The capacity of a rock to transmit water. It is expressed as the volume of

water at the existing kinematic viscosity that will move in unit time under a unit hydraulic gradient through a unit area measured at right angles to the

direction of flow.

Hydrostratigraphic Unit Grouping of stratified, mainly sedimentary rocks that have similar

hydrologic properties.

Impact A modification in the status of the environment brought about by the

proposed action or an alternative.

Indian Sacred Sites Defined in Executive Order 13007 as "any specific, discrete, narrowly

delineated location on Federal land that is identified by an Indian tribe, or individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has

informed the agency of the existence of such a site."

Indirect Impacts (under the National Environmental Policy

Act)

Impacts that are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable (40 Code of Federal Regulations 1508.8); synonymous with indirect effects.

Infiltration The movement of water or some other liquid into the soil or rock through

pores or other openings.

Irretrievable Applies primarily to the lost production of renewable natural resources

during the life of the project.

Irreversible Applies primarily to the use of nonrenewable resources, such as minerals,

cultural resources, wetlands, or to those factors that are renewable only

over long time spans, such as soil productivity. Irreversible also includes loss of future options.

Jurisdictional Wetland

A wetland area identified and delineated by specific technical criteria, field indicators, and other information for purposes of public agency jurisdiction. The public agencies that administer jurisdictional wetlands are the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Natural Resources Conservation Service.

Key Observation Point

"One or a series of points on a travel route or at a use area or a potential use area, where the view of a management activity would be most revealing" (BLM 1986c). KOPs are commonly selected to represent the most sensitive viewpoints for a proposed management activity based on the number of people who would experience them or the frequency and duration of viewing.

 L_d

Day average sound level. L_{eq} for the daytime period from 7:00 a.m. to 10:00 p.m.

Ldn

Day-night average sound level. L_{eq} for a 24-hour, midnight to midnight period with 10 dBA added to the sound levels from 10:00 p.m. to 7:00 a.m.

Leachate

A solution obtained by leaching as in downward percolation of water through soil or waste.

 L_{eq}

Equivalent continuous sound level. Level of steady state sound that, in a specific time period, has an equal amount of sound energy as the actual time-varying sound.

 L_{max}

Maximum sound level. The greatest sound level measured on a sound level meter during a designated time interval or event, using "fast" time averaging on the meter.

 L_n

Night average sound level. L_{eq} for the nighttime period from midnight to 7:00 a.m. and from 10:00 p.m. to midnight.

L_p or Sound Pressure Level

A measure of the change in atmospheric pressure induced by sound; depends not only on the power of the sound source, but also on the distance from the source and on the acoustical characteristics of the space surrounding the source. In decibels, 20 times the logarithm (base 10) of the ratio of a sound pressure to the reference sound pressure of 20 micropascals.

L_{pk} Peak sound level: Maximum instantaneous sound level during a specified

time interval or event.

L_W Sound Power Level: A measure of the acoustic energy output of a sound

source. In decibels, 10 times the logarithm (base 10) of the ratio of a given

power to the reference poser of 1 picowatt.

L₁ Sound level exceeded 1 percent of the time during a given period.

L₁₀ Sound level exceeded 10 percent of the time during a given period; often

represents a short-term noise event associated with passing vehicles or

airplanes flying over.

 L_{50} Sound level exceeded 50 percent of the time during a given period; the

median sound level.

L₉₀ Sound level exceeded 90 percent of the time during a given period;

sometimes used as an approximation for background noise.

Mineralization The process by which a valuable mineral or minerals are introduced into a

rock.

Mitigate, Mitigation

To cause to become less severe or harmful; actions to avoid, minimize,

rectify, reduce or eliminate, and compensate for impacts to environmental

resources.

Monitor To systematically and repeatedly watch, observe, or measure

environmental conditions in order to track changes.

National Environmental

Policy Act (NEPA)

The National Environmental Policy Act (NEPA) of 1969; the national Policy charter for protecting the environment. NEPA establishes policy, sets goals, and provides means for carrying out the policy. Regulations from

40 Code of Federal Regulations 1500-1508 implement the act.

National Historic Preservation Act of 1966, as amended

Act of 1900, as

(NHPA)

Act directing federal agencies to consider the effects of their programs and projects on properties listed on or eligible for the National Register of Historic Places. If a proposed action might impact any archaeological, historical, or architectural resource, this act mandates consultation with the

proper agencies.

National Pollutant Discharge

Elimination System

A part of the Clean Water Act that requires point source dischargers to obtain permits. These permits are referred to as National Pollutant Discharge Elimination System (NPDES) permits and are administered by

the U.S. Environmental Protection Agency.

7.0 GLOSSARY

National Register of Historic A register maintained by the National Park Service (NPS) that lists Places (NRHP) districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering and culture that meet criteria set forth in 36 Code of Federal Regulations 60. Native American Graves A federal law, passed in 1990 that provides for the return of certain sacred Protection Act (NAGPRA) and ceremonial objects held by museums and other repositories to the Native American peoples from which they were originally acquired. **Native Species** Plants that originated in the area in which they are found (i.e., they naturally occur in that area). Nevada Administrative Code The text of the regulations implementing the laws passed by the Nevada (NAC) legislature. **Nevada Revised Statutes** The text of laws passed by the Nevada legislature. (NRS) Noise Unwanted sound; one that interferes with one's hearing of something; a sound that lacks agreeable musical quality or is noticeably unpleasant. Octave The interval between two sounds having a frequency ratio of two. There are 8 octaves on the keyboard of a standard piano. Octave Band A segment of the frequency spectrum separated by an octave. Octave Band Level The integrated sound pressure level of only those sine-wave components in a specified octave band. One-third Octave Band A frequency band whose cutoff frequencies have a ratio of 2 to the one-third power, or approximately 1.26 (e.g., the cutoff frequencies of 891 Hz and 1,112 Hz define the 1,000 Hz third-octave band in common use). Ore A deposit of rock from which a valuable mineral or minerals can be economically extracted. Overburden Material that must be removed to allow access to an orebody, particularly in a surface mining operation. Paleozoic The span of time between approximately 570 and 245 million years ago. Particulate(s) Minute, separate particles, such as dust or other air pollutants. Perennial Stream A stream or reach of a stream that flows throughout the year.

Physiographic Province Region in which all parts have similar geologic structure and climate and

whose landforms differ significantly from those of other regions.

Pregnant Solution Solution derived from the leaching process that contains dissolved metals.

Project Alternatives Alternatives to the Proposed Action developed through the National

Environmental Policy Act (NEPA) process.

Properties of Cultural and Religious Importance (PCRI)

A "property of cultural or religious importance" that is a historic property eligible for the National Register of Historic Places and associated with the cultural practices of an Indian tribe or other cultural or ethnic community.

Raptor A bird of prey (e.g., eagle, hawk, falcon, and owl).

Recovery (Groundwater) An increase in groundwater levels such that the groundwater elevations

rise above initial baseline groundwater elevations. Refers to an increase in

water levels following drawdown.

Reserves Identified resources of mineral-bearing rock from which the mineral can be

extracted profitably with existing technology and under present economic

conditions.

Right-of-Way (ROW) Strip of land or corridor over which a power line, access road, or

maintenance road would pass.

Riparian Situated on or pertaining to the bank of a river, stream, or other body of

water. Riparian is normally used to refer to plants of all types that grow

along streams, rivers, or at spring and seep sites.

Runoff That part of precipitation that appears in surface streams; precipitation that

is not retained on the site where it falls and is not absorbed by the soil.

Sediment Material suspended in or settling to the bottom of a liquid. Sediment input

comes from natural sources, such as soil erosion and rock weathering, construction activities, or anthropogenic sources, such as forest or

agricultural practices.

Sediment Load The amount of sediment (sand, silt, and fine particles) carried by a stream

or river.

Seismicity The likelihood of an area being subject to earthquakes; the phenomenon

of earth movements.

7.0 GLOSSARY

interference.

Sensitive Viewpoint Similar to a Key Observation Point, but of lesser sensitivity due to

infrequency of use, small numbers of viewers, or similar mitigating

circumstances.

Sound Power The total sound energy radiated by a source per unit time. The unit of

measurement is the watt or some fraction of a watt.

Sound Pressure The instantaneous difference between the actual pressure produced by a

sound wave and the average or barometric pressure at a given point in

space.

Species A group of individuals of common ancestry that closely resemble each

other structurally and physiologically, and in nature interbreed producing

fertile offspring.

Stratigraphy Form, arrangement, geographic distribution, chronological succession,

classification, and relationships of rock strata.

Subsidence Sinking or downward settling of the earth's surface.

Tertiary The span of time between 65 and 10 million years ago.

Threatened Species Any species of plant or animal that is likely to become endangered within

the foreseeable future throughout all or a significant portion of its range.

Total Dissolved Solids (TDS) The total amount of dissolved material, organic or inorganic, contained in a

sample of water.

Total Suspended Solids The amount of undissolved particles suspended in a sample of water.

Traditional Cultural Property A site or resource that is eligible for inclusion in the National Register of

Historic Places because of its association with cultural practices or beliefs

of a living community.

Transmissivity The rate at which water of the prevailing kinematic viscosity is transmitted

through a unit width of an aquifer under a unit hydraulic gradient; it equals

the hydraulic conductivity multiplied by the aquifer thickness.

Visual Resource The composite of basic terrain, geologic features, water features,

vegetation patterns, and land use effects that typify a land unit and

influence the visual appeal the unit may have for viewers.

Visual Resource

Management (VRM) Classes

A classification of landscapes according to the kinds of structures and changes that are acceptable to meet established visual goals (BLM).

Water Table

The level in the saturated zone at which the pressure is equal to the atmospheric pressure.

Waters of the United States

A jurisdictional term from Section 404 of the Clean Water Act referring to water bodies such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The use, degradation, or destruction of these waters could affect interstate or foreign commerce.

Wetlands

Areas that are inundated by surface or groundwater with a frequency sufficient to support (and under normal circumstances do or would support) a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

Wind Rose

A graphical representation of wind direction and wind speed frequencies.

8.0 INDEX

Access	2-20, 3.11
Affected Environment	
	3.6-1, 3.7-1, 3.8-1, 3.9-1, 3.10-1,
	3.15-1, 3.16-1, 3.17-1
Air Quality	3.10-1
Alternatives Considered in Detail	2-70
Alternatives Considered but Eliminated	2-94
Ancillary Facilities	2-46
Authorizing Actions	1-7
BLM-preferred Alternative	2-113
Comparative Analysis of Alternatives	2-113, 2-115
Cortez Hills Complex Underground Mind Alternative	2-78
Cultural Resources	3.8-1
Cumulative Impacts	3.1-25, 3.2-95, 3.3-14, 3.4-22, 3.5-38,
	3.11-11, 3.12-8, 3.13-21, 3.14-9,
	3.15-13, 3.16-7, 3.17-10
Crescent Valley Waste Rock Alternative	2-75
Cross-valley Conveyor	2-22
Dewatering	2-24
Drilling and Blasting	2-21
Electric Power	2-45
Emergency Response	2-49
Environmental Consequences	3.1-14, 3.2-38, 3.3-6, 3.4-13, 3.5-18,
	3.11-4, 3.12-4, 3.13-4, 3.14-6,
	3.15-5, 3.16-1, 3.17-3
Environmental Justice	3.14-1
Environmental Protection Measures	2.52
Existing Facilities	2-2
Exploration	2-43
Fire Protection	2-51
Fisheries	
Geochemistry	3.2-1
Geology and Minerals	3.1-1
Grass Valley Heap Leach Alternative	2-70
Groundwater	
Hazardous Materials and Solid Waste	2-47, 3.17-1
Heap Leach Facilities	2-34, 2-66
Infrastructure	2-45

8.0 INDEX

Invasive and Non-native Species	3.5-1
Irreversible and Irretrievable	3.19-1
Land Use	3.11-1
List of Preparers and Reviewers	5-1
Mining Operations	2-12
Monitoring and Mitigation	3.1-29, 3.2-99, 3.3-14, 3.4-24, 3.5-40,
	3.6-9, 3.7-4, 3.8-14, 3.9-70, 3.10-22,
	3.11-11, 3.12-10, 3.13-22, 3.14-10,
	3.15-13, 3.16-8, 3.17-10
Native American Consultation	3.9-3
Native American Traditional Values	3.9-1
No Action Alternative	2-88
Noise	3.16-1
Open Pits	2-14, 2-64
Paleontological Resources	3.7-1
Past and Present Actions	2-102
Permits and Approvals	1-8
Proposed Action	2-5
Processing Facilities	2-39
Public Participation	4-1
Purpose of and Need for the Action	1-4
Range Resources	3.6-1
Reagent Transportation and Storage	2-49
Reasonably Foreseeable Future Actions	2-109
Reclamation	2-58
Recreation	
Residual Adverse Effects	3.1-30, 3.2-101, 3.3-14, 3.4-25, 3.5-42,
	3.6-9, 3.7-4, 3.8-14, 3.9-71, 3.10-23,
	3.15-13, 3.16-8, 3.17-10
Roads	2-20
Schedule and Workforce	2-11
Scoping	4-1
Security and Fencing	2-47
Social and Economic Values	
Soils	
Special Status Species	3.4-1, 3.5-1
Spill Prevention	2-49
Surface Water	
Tailings Facility	
Underground Mining	•
Vegetation	•
Visual Resources	
Waste Management	2-46, 2-51

8.0 INDEX

Waste Rock Facilities	2-28, 2-65
Water Management	2-24
Water Quality and Quantity	
Water Resources	3.2-1
Water Supply	2-45
Waters of the U.S	3.2-1
Wilderness	3.12-1
Wildlife	3.5-1
Woodland Products	3 4-1